

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed May 17, 2005 (the "Office Action"). At the time of the Office Action, Claims 1-46 were pending in this Application. The Office Action rejected Claims 1-46. Applicant respectfully requests reconsideration and favorable action in this case.

Section 103 Rejections

The Office Action rejects Claims 1-17 under 35 U.S.C. § 103(a) as being unpatentable over EPO No. 0759681 to Watanabe et al. ("*Watanabe*"). Applicant respectfully traverses these rejections.

Claim 1 recites "a filter array including a plurality of filters, each filter having a disparate center frequency." Claims 3, 5, 7 and 9 recite similar elements. The Office Action suggests that *Watanabe* discloses this feature and cites filters 28-11 through 28-MN of Figure 11 of *Watanabe*. See Office Action, ¶ 2. However, nowhere does *Watanabe* disclose, either in Figure 11 or any other portion of *Watanabe*, tunable wavelength filters having a disparate center frequency.

For at least these reasons, Applicant respectfully submits that Claims 1, 3, 5, 7 and 9 are patentable over the cited prior art and respectfully request that the rejections of Claims 1, 3, 5, 7 and 9 be withdrawn.

Claim 2 depends from Claim 1, Claim 4 depends from Claim 3, Claim 6 depends from Claim 5, Claim 8 depends from Claim 7 and Claims 10-17 depend from Claim 9. Applicant thus respectfully requests that the rejections of Claims 2, 4, 6, 8 and 10-17 be withdrawn for at least the same reasons as discussed above with respect to Claims 1, 3, 5, 7 and 9.

In addition, the Office Action indicates that *Watanabe* does not disclose the elements of Claims 2 and 4 but states that:

[O]ne skilled in the art would clearly have recognized that equally spacing the center frequencies of the filters would have provided for efficient use of bandwidth and would have reduced the possibility of cross talk between the channels. Therefore, it would have been obvious to one skilled in the art at the

time the invention was made to have equally spaced the center frequencies of the filters in order to efficiently use the bandwidth provided and to avoid crosstalk.

Office Action, pages 2-3.

The Office Action does not cite to any prior art as disclosing the elements of Claims 2 and 4. To the extent that any rejection is based on "Official Notice," "well-known art," common knowledge or other information within the Examiner's personal knowledge, Applicants respectfully request that the Examiner cite a reference in support of his position or provide an affidavit in accordance with M.P.E.P. § 2144.03 and 37 C.F.R. § 1.104.

The M.P.E.P. sets forth a strict legal standard for finding obviousness based on a modification of a reference. According to the M.P.E.P., "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge [that was] generally available to one of ordinary skill in the art" at the time of the invention. M.P.E.P. § 2143.01. The "fact that references can be combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination" or modification. *Id.* (emphasis in original).

The Office Action's statements above essentially provide suggested advantages for center frequencies of filters being substantially equally spaced from each other. This does not satisfy the strict requirements for finding a motivation to modify the cited reference as suggested. The Office Action cites no such motivation in the prior art. For at least these additional reasons, Applicant respectfully submits that Claims 2 and 4 are patentable over the cited prior art and respectfully requests that the rejections of Claims 2 and 4 be withdrawn.

In addition, Claim 10 recites wherein at least two of the optical transmitters comprise disparate rate modulators. The Office Action suggests that *Watanabe* discloses this element at reference numeral 22-11 through 22-MN in Figure 11. *See* Office Action, page 3. However, these reference numerals merely refer to external modulators. Neither this portion nor any other portion of *Watanabe* discloses disparate rate modulators. For at least these

additional reasons, Applicant respectfully submits that Claim 10 is patentable over the cited prior art and respectfully requests that the rejection of Claim 10 be withdrawn.

Moreover, Claim 13 recites at least one transponder operable to receive an optical signal having a center frequency and to generate a frequency adjusted optical signal having a disparate center frequency. The Office Action suggests that *Watanabe* discloses this element at modulators 22-11 through 22-MN in Figure 11. *See* Office Action, page 3. However, these modulators nor any other portion of *Watanabe* discloses a transponder operable to receive a signal having a center frequency and to generate a frequency adjusted signal having a disparate center frequency. For at least these additional reasons, Applicant respectfully submits that Claim 13 is patentable over the cited prior art and respectfully requests that the rejection of Claim 13 be withdrawn.

The Office Action rejects Claims 18 and 22-23 under 35 U.S.C. § 103(a) as being unpatentable over *Watanabe* in view of U.S. Patent No. 5,938,309 to Taylor ("*Taylor*"). Applicant respectfully traverses these rejections.

Claim 18 depends from Claim 9. Applicant thus respectfully requests that the rejection of Claim 18 be withdrawn for at least the same reasons as discussed above with respect to Claim 9.

In addition, independent Claim 22 recites a control clock having a plurality of clock sources dynamically selectable to correspond to a bit rate of the optical signal and the optical transponder operable to adjust the optical signal at a rate of a selected clock source from a first center frequency to a disparate second center frequency. The Office Action indicates that *Watanabe* does not disclose any type of clock sources. *See* Office Action, page 4. The Office Action then cites to general clock and data recovery circuits 25 of *Taylor* and concludes that each of the clock-related elements of Claim 22 would have been obvious. *See id.* at pages 4-5. This citation to disclosure of a general and clock data recovery circuit does not disclose a plurality of clock sources dynamically selectable to correspond to a bit rate of an optical signal or an optical transponder operable to adjust the optical signal at a rate of a selected clock source from a first center frequency to a disparate second center frequency. In addition, the Office Action fails to cite the specific motivation in the prior art to combine

these references. Broad and conclusory "it would have been obvious" statements fail to satisfy the requirement for finding in the prior art a motivation to combine references. *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Civ. 1999). For at least these reasons, Applicant respectfully submits that Claim 22 is patentable over the cited prior art and respectfully requests that the rejection of Claim 22 be withdrawn.

Claim 23 depends from Claim 22. Applicant thus respectfully requests that the rejection of Claim 23 be withdrawn for at least the same reasons as discussed above with respect to Claim 22.

The Office Action rejects Claims 19-21, 24-27, 29-34, 36, 38-41, and 43-46 under 35 U.S.C. § 103(a) as being unpatentable over *Watanabe* in view of J. Roldán et al., "New Algorithm for Management of the Optical Spectrum in Multiwavelength Optical Networks" ("*Roldán*"). Applicant respectfully traverses these rejections.

The Office Action states that *Watanabe* fails to disclose a number of elements found in the independent claims. *See* Office Action, page 5. The Office Action then states that:

[O]ne skilled in the art would clearly have recognized that dynamic adjustment of the bandwidth allocation system would have been beneficial. Furthermore, one skilled in the art would clearly have recognized that in order for the system to be truly dynamic, it would have required the use of a controller to orchestrate the use of the various components. Roldan teaches a management system which dynamically assigns a transmitter, determines the bandwidth of each signal, and dynamically assigns channels as a function of the bit rate. One skilled in the art would clearly have recognized that it would have been possible to incorporate this control mechanism into the device of *Watanabe* to further control which filters are put into use and which are not. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have used a control system in the system of *Watanabe* as taught by Roldan in order to orchestrate the dynamic bandwidth assignment between the elements of the system.

Office Action, page 5. First, as discussed above, "fact that references can be combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination" or modification. *Id.* (emphasis in original). The fact that a particular claim element missing in the prior art would be "beneficial" or "possible" does not satisfy the requirement for a finding in the prior art of a

suggestion or motivation to combine references. The Office Action fails to provide such a motivation.

In addition, *Roldan* discloses an optical spectrum management system using a reference pulse method system based on interferometer systems. *Watanabe* does not relate to these systems. There is no support for even an allegation that these two references can be combined, let alone a suggestion or motivation for doing so.

Moreover, a mere general reference in *Roldan* that a system is allowed to dynamically assign optical channel frequencies for tunable transmitters and receivers and dynamically assign channel separation as a function of bit rate does not provide the necessary disclosure to support rejection of the various claim elements.

For example, nowhere does the Office Action cite to disclosure of the elements of independent Claim 24 "determining a spectrum width for a channel," "allocating to the channel a bandwidth of a group of base channels covering the spectrum width for the channel" and "adjusting a passband of a channel filter at a center frequency of the group of base channels to correspond to the spectrum width for the channel" or the similar elements of Claims 31 and 38.

Therefore, for at least these reasons, Applicant respectfully submits that Claims 24, 31 and 38 are patentable over the cited prior art and respectfully requests that the rejections of Claims 24, 31 and 38 be withdrawn.

Claims 19-21 depend from Claim 9, Claims 25-27 and 29-30 depend from Claim 24, Claims 32-34 and 36-37 depend from Claim 31 and Claims 39-41 and 43-46 depend from Claim 38. Applicant thus respectfully requests that the rejections of Claims 19-21, 25-27, 29-30, 32-34, 39-41 and 43-46 be withdrawn for at least the same reasons as discussed above with respect to Claims 9, 24, 31 and 38.

In addition, nowhere does the Office Action cite to disclosure of the elements of Claim 26 "deactivating a plurality of filters neighboring the channel filter and having a center frequency in the spectrum width for the channel" or the similar elements of Claims 33 and 40.

The Office Action rejects Claims 28, 35, and 42 under 35 U.S.C. § 103(a) as being unpatentable over *Watanabe* in view of *Roldán* and *Taylor*. Applicant respectfully traverses these rejections.

Claims 28, 35 and 42 depend from Claims 24, 31 and 38, respectfully. Applicant thus respectfully requests that the rejections of Claims 28, 35 and 42 be withdrawn for at least the same reasons as discussed above with respect to Claims 24, 31 and 38.

CONCLUSION

Applicant has made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicant respectfully requests full allowance of all the pending claims.

If the present application is not allowed and/or if one or more of the rejections is maintained, Applicant hereby requests a telephone conference with the Examiner and further requests that the Examiner contact the undersigned attorney to schedule the telephone conference.

Applicant believes no fees are due. However, should there be a fee discrepancy, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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